

Solve using Gaussian Elimination

$$\begin{cases} 2x + 2y - z = 10 \\ x - 2y + z = -4 \\ -4x + y - 2z = 1 \end{cases} = \left[\begin{array}{ccc|c} 2 & 2 & -1 & 10 \\ 1 & -2 & 1 & -4 \\ -4 & 1 & -2 & 1 \end{array} \right]$$

$$\left[\begin{array}{ccc|c} 1 & -2 & 1 & -4 \\ 2 & 2 & -1 & 10 \\ -4 & 1 & -2 & 1 \end{array} \right] \begin{array}{l} \text{switch} \\ R_1 \leftrightarrow R_2 \end{array} \Rightarrow \left[\begin{array}{ccc|c} 2 & 2 & -1 & 10 \\ 1 & -2 & 1 & -4 \\ -4 & 1 & -2 & 1 \end{array} \right] \begin{array}{l} -2R_1 + R_2 \\ -2R_1 + R_3 \end{array}$$

$$\left[\begin{array}{ccc|c} 1 & -2 & 1 & -4 \\ 0 & 6 & -3 & 18 \\ 0 & -7 & 2 & -15 \end{array} \right] \begin{array}{l} -4R_1 + R_3 \\ -4R_1 + R_2 \end{array} \Rightarrow \left[\begin{array}{ccc|c} 1 & -2 & 1 & -4 \\ 0 & 6 & -3 & 18 \\ 0 & -7 & 2 & -15 \end{array} \right]$$

$$\left[\begin{array}{ccc|c} 1 & -2 & 1 & -4 \\ 0 & 6 & -3 & 18 \\ 0 & -7 & 2 & -15 \end{array} \right] \begin{array}{l} 7R_2 + R_3 \\ 7R_2 + R_3 \end{array} \Rightarrow \left[\begin{array}{ccc|c} 1 & -2 & 1 & -4 \\ 0 & 6 & -3 & 18 \\ 0 & 0 & 1 & -4 \end{array} \right]$$

$$\begin{aligned} x - 2y + z &= -4 & \boxed{x = z} \\ 0 \quad y - \frac{1}{2}z &= 3 & \boxed{y = 1} \\ & & \boxed{z = -4} \end{aligned}$$

(40) $(-5, -2, 1)$

$$x + 2y - z =$$

$$x + y + z =$$

$$3x - 3y + 4z =$$

Sect. 7.3

#14, 15, 17, 18, 19

Choice 1

2 weeks by 5/18/11

$$\frac{\text{HW Grade} - \text{Test Score}}{2}$$

possible from test corrections

Choice 2

Retake 4 equation solving problems + an equation fitting
this will replace your score, *you could get worse*

Choice 3

Do nothing, unless if you want